was drawn higher, the can would receive more ſparks; becauſe the can and extended chain were capable of ſupporting a greater atmoſphere than the can with the chain gather'd up into its belly.——And that the atmoſphere round the can was diminiſhed by raiſing the chain, and increaſed again by lowering it, is not only agreeable to reaſon, ſince the atmoſphere of the chain muſt be drawn from that of the can, when it roſe, and returned to it again when it fell; but was alſo evident to the eye, the lock of cotton always approaching the can when the chain was drawn up, and receding when it was let down again.

Thus we ſee that increaſe of ſurface makes a body capable of receiving a greater electric atmoſphere: But this experiment does not, I own, fully demonſtrate my new hypotheſis; for the braſs and ſilver ſtill continue in their ſolid ſtate, and are not rarified into vapour, as the water is in clouds. Perhaps ſome future experiments on vapourized water may ſet this matter in a clearer light.

One ſeemingly material objection ariſes to the new hypotheſis, and it is this. If water, in its rarified ſtate, as a cloud, requires, and will abſorb more of the electric fluid than when in its denſe ſtate as water, why does it not acquire from the earth all it wants at the inſtant of its leaving the ſurface, while it is yet near, and but juſt riſing in vapour? To this difficulty I own I cannot at preſent give a ſolution ſatisfactory to myſelf: I thought, however, that I ought to ſtate it in its full force, as I have done, and ſubmit the whole to examination.

And I would beg leave to recommend it to the curious in this branch of natural philoſophy, to repeat with care and accurate obſervation, the experiments I have reported in this and former papers relating to *poſitive* and *negative* electricity, with ſuch other relative ones as ſhall occur to them, that it may be certainly known whether the electricity communicated by a glaſs globe, be *really poſitive*. And alſo I would requeſt all who may have an opportunity of obſerving the recent effects of lightning on buildings, trees, *&c.* that they would conſider them particularly with a view to diſcover the direction. But in theſe examinations, this one thing is always to be underſtood, *viz.* that a ſtream of the electric fluid paſſing thro' wood, brick, metal, *&c.* while ſuch fluid paſſes in *ſmall quantity*, the mutually repulſive power of its parts is confined and overcome by the coheſion of the parts of the body it paſſes through, ſo as to prevent an exploſion; but when the fluid comes in a quantity too great to be confin'd by ſuch coheſion, it explodes, and rends or fuſes the body that endeavour'd to confine it. If it be wood, brick, ſtone, or the like, the ſplinters will flie off on that ſide where there is leaſt reſiſtance. And thus, when a whole is ſtruck thro' paſte-board by the electrify'd jar, if the ſurfaces of the paſte-board are not confin'd or compreſs'd, there will be a bur rais'd all round the hole on both ſides the paſteboard; but if one ſide be confin'd, ſo that the bur cannot be rais'd on that

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